Sun Ultra™ 10 EMI Retrofit Guide

Includes New CD-ROM Cable
Installation Instructions for
Cable Kit F370-3267-03

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Sun Ultra 10 EMI Retrofit Guide

Note – If you are replacing the CD-ROM cable as part of the F370-3267-03 cable kit, go to "Installing the New CD-ROM Drive Cable" on page 8.

The *Sun Ultra 10 EMI Retrofit Guide* describes how to reduce electromagnetic interference (EMI) emitted by the Ultra™ 10 system.

This document is written for persons who have experience troubleshooting and replacing computer hardware. If you do not feel confident performing these types of tasks, please contact your Sun™ service representative for assistance.

Please read through this document before beginning any of the procedures.

Package Contents

The Sun Ultra 10 EMI Retrofit Kit contains the following items:

TABLE 1   Retrofit Kit Package Contents

Qty	Description	Part Number
1	ATA-66 CD-ROM drive cable with ferrite filter	370-4944-01
1	Twisted pair Ethernet (TPE) EMI clip	—
2	Disk drive EMI clip	—
1	Antistatic strap kit	257-1007-01
1	EMI retrofit guide	816-2780-11

If any items are missing from your retrofit kit, please contact your Sun service representative for replacement.

Tools

To perform the retrofit, you need the following tools:

- No. 2 Phillips screwdriver
- Antistatic wrist strap (supplied in retrofit kit)

Retrofit Overview

The retrofit involves five tasks:

1. "Preparing the System for Parts Installation" on page 2
2. "Installing the TPE EMI Clip" on page 3
3. "Installing the Disk Drive EMI Clips" on page 4
4. "Installing the New CD-ROM Drive Cable" on page 8
5. "Finishing the Parts Installation" on page 10

Preparing the System for Parts Installation

Read and follow the instructions provided in Chapter 7, "Preparing for Component Replacement", of the *Sun Ultra 10 Service Manual*, 805-7764. The chapter describes how to power off the system, remove the peripheral cables and system cover, and attach an antistatic wrist strap.

The service manual is available online from the following sources:

- *Sun Ultra 10 Software Supplement* CD-ROM that ships with the system
- `http://docs.sun.com`
- `http://www.sun.com/products-n-solutions/hardware/docs`

Installing the TPE EMI Clip

The twisted-pair Ethernet (TPE) EMI clip can be identified by its elongated shape and two tabs. See FIGURE 1.

Tabs (2)
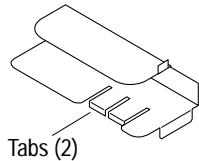
FIGURE 1 TPE EMI Clip

▼ To Install the TPE EMI Clip

For this procedure, refer to FIGURE 2.

1. Locate the TPE connector on the Ultra 10 motherboard.

The connector is located at the rear corner of the system case.
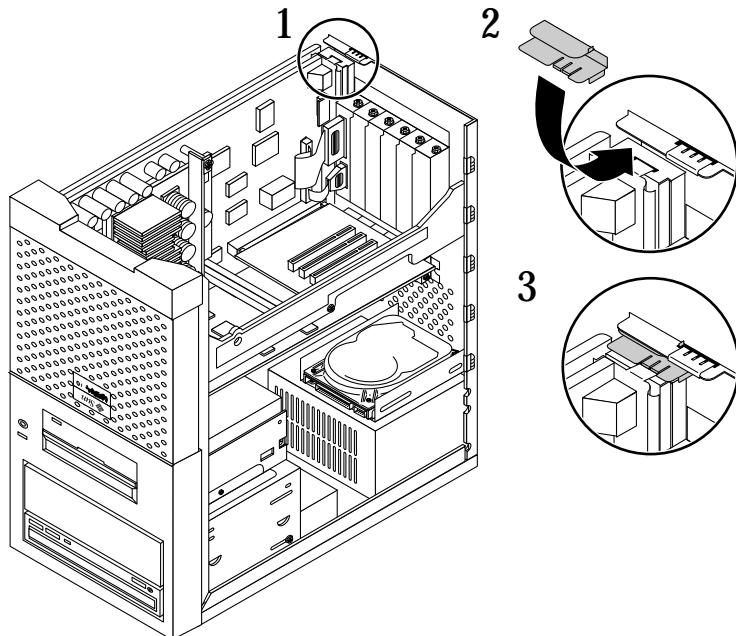
FIGURE 2 TPE Connector and Clip Installation

2. Press the clip into the rear edge of the case, just above the TPE connector.

You might need to compress the clip to fit it into the narrow gap. Once in place, the clip might remain compressed, which is normal for an older chassis.

3. Make sure that the two tabs fit into the slot in the chassis.

Installing the Disk Drive EMI Clips

The disk drive EMI clips can be identified by their open frame design. See FIGURE 3.
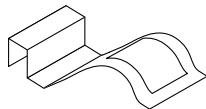
FIGURE 3   Disk Drive EMI Clip

Note – If your system only has one clip, install two more clips. If your system has two clips, install the third clip.

▼ To Install the Disk Drive EMI Clips

1. Disconnect the power, drive, and audio cables from the rear of the floppy drive and CD-ROM drive.

See FIGURE 4.
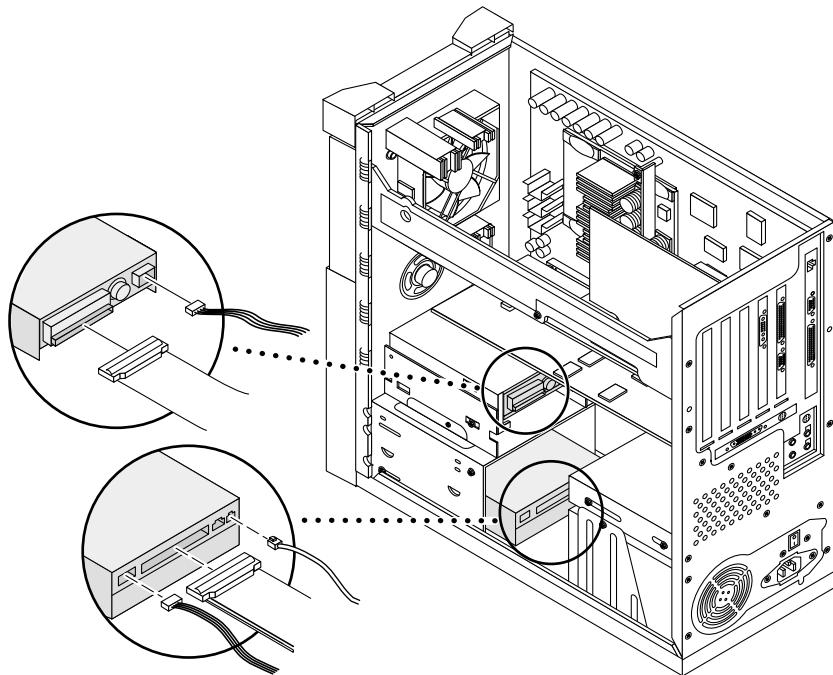
FIGURE 4   Disconnecting the Floppy Drive and CD-ROM Drive Cables

2. **Using the No. 2 Phillips screwdriver, remove the four screws that secure the CD-ROM drive and the single screw that secures the floppy drive bracket.**

   See FIGURE 5. Set the screws aside in a safe place.
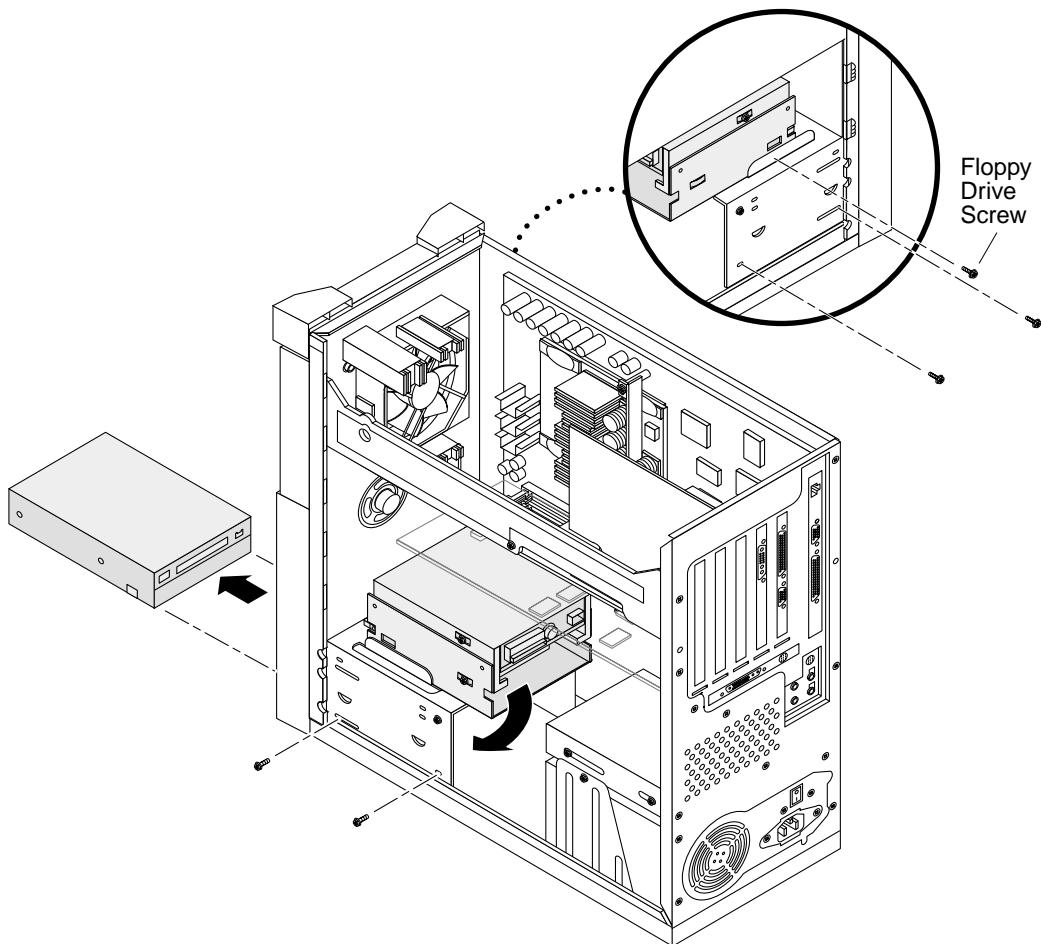
FIGURE 5   Removing the CD-ROM Drive and Floppy Drive Bracket

3. **Slide the CD-ROM drive and floppy drive bracket out of the chassis.**

   See FIGURE 5. Set the drives aside.

4. Attach the disk drive EMI clips to the locations shown in FIGURE 6.

There should be a total of three clips.
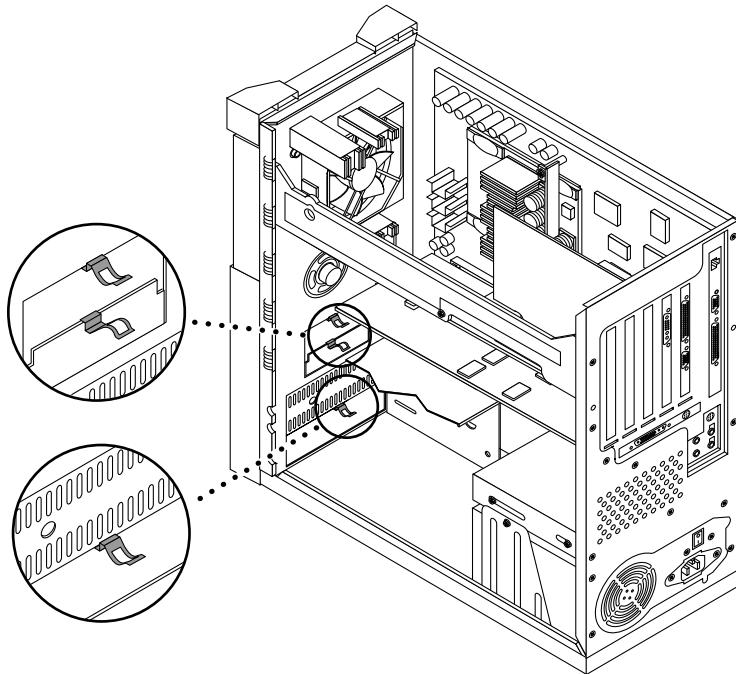
Disk Drive EMI Clip Locations

5. Reinstall the CD-ROM drive and floppy drive bracket and secure them with the screws.

6. Reattach all the cables you disconnected in Step 1, except for the CD-ROM drive cable.

7. Disconnect the other end of the CD-ROM drive cable from the motherboard at connector J14.

Discard this cable.

Installing the New CD-ROM Drive Cable

The new CD-ROM drive cable is an 80 conductor, type ATA-66. The end connectors are labeled "DRIVE" and "MOTHERBOARD". A large ferrite filter is installed near the DRIVE connector. Underneath the ferrite filter are dual lock reclosable fasteners. See FIGURE 7.

Connects to
CD-ROM drive

Connects to
motherboard

Dual lock fasteners
underneath (2)
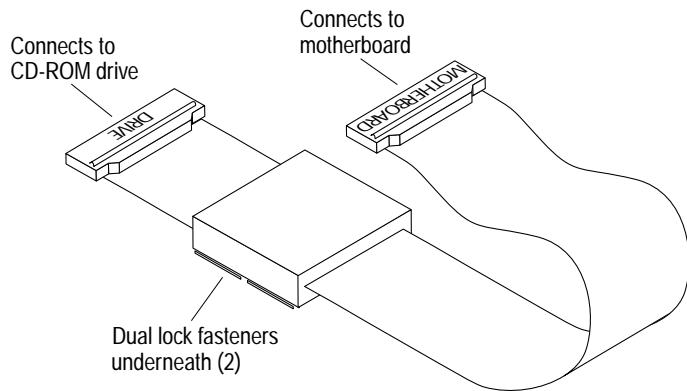
FIGURE 7   Replacement CD-ROM Drive Cable

Note – Do not separate the dual lock fasteners or remove the adhesive backing from the fasteners as this time. You perform this task later in the procedure.

▼ To Install the New CD-ROM Drive Cable

For this procedure, refer to FIGURE 8.
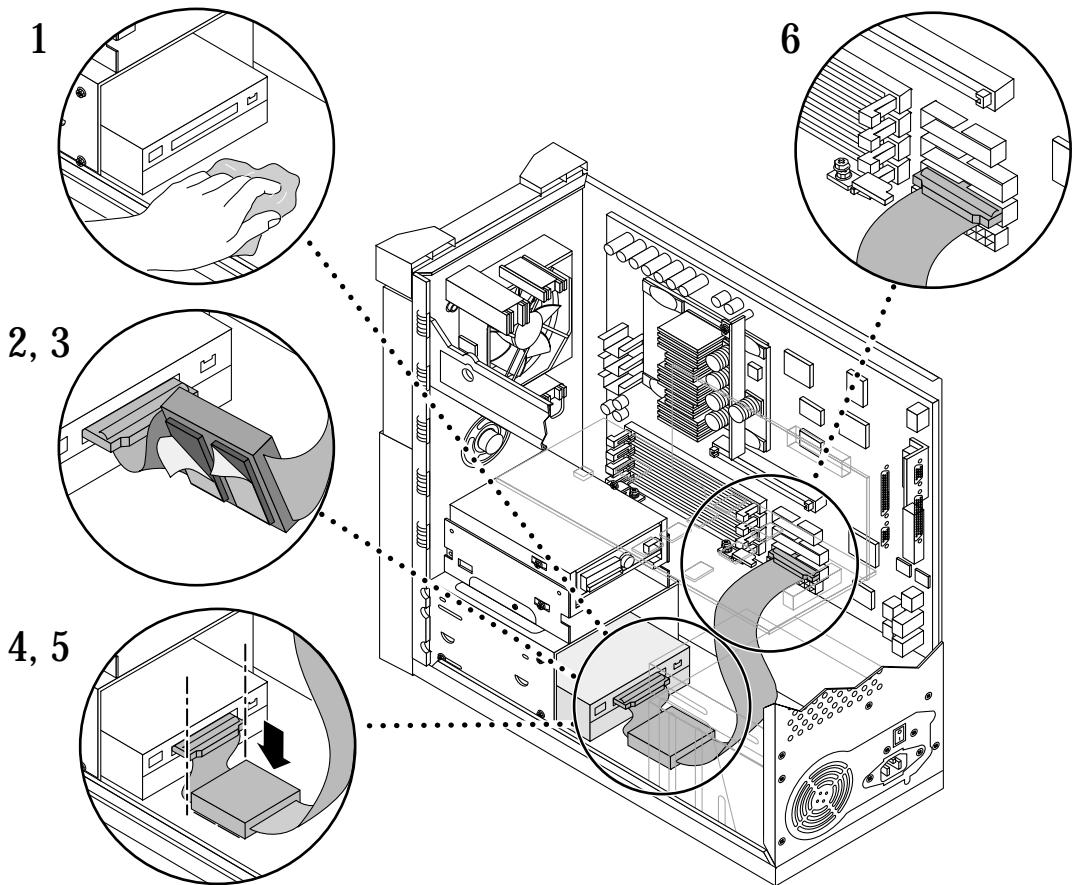
FIGURE 8   Installing the New CD-ROM Drive Cable

1. **Clean the inside surface of the chassis between the CD-ROM drive and the power supply.**

2. **Plug the end of the new cable labeled "DRIVE" into the CD-ROM drive.**

3. **Peel the adhesive backing from the dual lock fasteners.**

4. **Align the left edge of the ferrite filter with the CD-ROM drive cable connector.**

5. **Press the sticky side of the dual lock fasteners to where you cleaned the chassis.**
   Press firmly.

6. **Plug the end of the new cable labeled "MOTHERBOARD" into the motherboard at connector J14.**

Finishing the Parts Installation

Read and follow the instructions provided in Chapter 11, "Finishing Replacement Procedures", of the *Sun Ultra 10 Service Manual*, 805-7764. The chapter describes how to remove the antistatic wrist strap, replace the system cover and peripheral cables, and power on the system.